# Messaging Healthy Youth Conference

Ruben Baler, Ph.D. Science Policy Branch – NIDA - NIH





### What are we looking for?

A "behavioral vaccine" provides an inoculation against morbidity or mortality, impacting physical, mental, or behavior disorders.

An historical example of a behavioral vaccine is antiseptic hand washing to reduce the spread of infections.

In current society, issues with high levels of morbidity, such as substance abuse, delinquency, youth violence, and other behavioral disorders, would greatly benefit from a low-cost, widespread strategy as simple as antiseptic hand washing.

- Examples of prevention initiatives in 3 different areas:
  - a) Performance enhancing drugs
  - b) Universal Prevention
  - c) NIDA's Chat Day
- Open discussion:
  - ➤ What are the active ingredients?
  - ► The 3 Rs: Respect Relevance Repetition.
  - ► Framing the issues.
  - ➤ The "cherry-picking syndrome". The example of marijuana and the endocannabinoid system.

## ATLAS VATHENA

HOME

ABOUT US

NFL PARTNERSHIP

PRESS

CONTACT US



Building a Stronger Student Body

The ATLAS and ATHENA programs - gender-specific, student-led programs amed specifically at discouraging steroid abuse - were shown to reduce not only steroid use but a variety of risky behaviors, including recreational drug use, teen sex and driving while drunk."

-Tom Davis, Ranking Member Committee on Oversight and Government Reform, Nov. 200 ATLAS (Athletes Training & Learning to Avoid Steroids) and ATHENA (Athletes Targeting Healthy Exercise & Nutrition Alternatives) are award-winning, evidence-based health promotion and substance abuse prevention programs for high school athletic teams. They are peer-led, gender specific, interactive and easy to implement during a sport team's usual practice sessions.

ATLAS and ATHENA are proven to protect athletes from substance abuse and related harmful behaviors.

#### ATLAS and ATHENA educate athletes about:

- Sports Nutrition
- . Strength Training
- . Effects of Steroids, Alcohol, Supplements & Micit Drugs on Performance

What makes these programs effective? Student-athletes teach each other in a small group setting. A coach facilitates the program. The activities are easy to follow and foster creativity. Student-athletes share similar goals and work together to improve their sport performance by learning how to eat better and train correctly.

ATLAS and ATHENA have undergone rigorous research evaluations and have been evaluated by numerous federal agencies for effectiveness, including the U.S. Department of Health & Human Services and the Government Accountability Office (GAO), the investigative arm of Congress. Awards have been received from the U.S. Department of Education, U.S. Department of Health & Human Services, the U.S. Office of Juvenile Justice and Sports Illustrated.

Are you a 100% natural athlete?

ATLAS (Athletes Training & Learning to Avoid Steroids)

ATHENA (Athletes Targeting Healthy Exercise & Nutrition Alternatives)

### What makes these programs effective?

- Student-athletes teach each other in a small group setting. (kids listen to kids)
- A coach facilitates the program.
- The activities are easy to follow and foster creativity.
- Student-athletes share similar goals and work together to improve their sport performance by learning how to eat better and train correctly.

### A Mediation Analysis of the ATHENA Intervention for Female Athletes: Prevention of Athletic-Enhancing Substance Use and Unhealthy Weight Loss Behaviors

Krista W. Ranby, MA, Leona S. Aiken, PhD, David P. MacKinnon, PhD, Diane L. Elliot, MD, FACP, Esther L. Moe, PhD, MPH, Wendy McGinnis, and Linn Goldberg, MD, FACSM Arizona State University and Oregon Health & Science University

Objective To explain, through mediation analyses, the mechanisms by which ATHENA (Athletes Targeting Healthy Exercise and Nutrition Alternatives), a primary prevention and health promotion intervention designed to deter unhealthy body shaping behaviors among female high school athletes, produced immediate changes in intentions for unhealthy weight loss and steroid/creatine use, and to examine the link to long-term follow-up intentions and behaviors. **Methods** In a randomized trial of 1668 athletes, intervention participants completed coach-led peer-facilitated sessions during their sport season. Participants provided pre-test, immediate post-test, and 9-month follow-up assessments. **Results** ATHENA decreased intentions for steroid/creatine use and intentions for unhealthy weight loss behaviors at post-test. These effects were most strongly mediated by social norms and self-efficacy for healthy eating. Low post-test intentions were maintained 9 months later and predicted subsequent behavior. **Conclusions** ATHENA successfully modified mediators that in turn related to athletic-enhancing substance use and unhealthy weight loss practices. Mediation analyses aid in the understanding of health promotion interventions and inform program development.

**Key words** adolescents; educational interventions; health promotion and prevention; lLongitudinal research; peers; mediation analysis.

### NFL-School Partnerships

Sponsoring the Program in local High Schools.



University Academy
Pasco Academy
Washington H.S.
Lincoln College Preparatory Academy
Central H.S.



Helix Charter H.S. San Ysidro H.S. Mt. Miguel H.S.



Lincoln H.S. Lowell H.S. Burton H.S. Santa Clara H.S. Sacred Heart Cathedral Preparatory



Christ Presbyterian Academy Hillwood H.S. Whites Creek H.S.



Booker T. Washington H.S. Boyd Anderson H.S. Burton H.S. St. Thomas Aquinas H.S. University School



Evergreen H.S. Turnwater H.S. Mercer Island H.S.



Eskridge H. S. Roosevelt H. S. Collinsville H. S. Fort Zurnwalt West H. S. Soldan International Studies H. S.



Fairmont Heights H.S. Ballou Senior H.S. West Potomac H.S. Robinson Secondary H.S. Park View H.S.

### **ATLAS Results**

- New anabolic steroid use decreased 50%
- New alcohol and illicit drug use decreased 50%
- Occurrences of drinking and driving declined 24%
- Reduced use of performance-enhancing supplements
- Improved nutrition and exercise behaviors
- Students believed they were better athletes

### **ATHENA Results**

- Less use of athletic enhancing substances (steroids, amphetamines, supplements)
- Less new and ongoing use of diet pills
- Less riding in a car with a drinking driver
- Less new sexual activity
- Improved nutrition behaviors
- Fewer injuries
- One to three years following graduation: improved nutrition practices and reduced use of alcohol, marijuana and diet pills



What is it About?

**Getting Started** 

Community

Success Stories

Events

Purchase



### **GBG**

Good Behavior Game: reinforces *inhibition* in a group context of elementary school so that a child acquires the mental ability to sustain attention, to self-regulate or self-manage, and to cooperate with others intentionally

- Major improvement in engaged learning by students.
   (e.g., 60-90 minutes additional learning time per day)
- Reductions in deviant and criminal behaviors
   (e.g., 30 to 605 reduction in referrals, suspensions or expulsions)
- Increased mental helath
   (e.g., 50 to 70% reduction in behavioral difficulties like ADHD and defiance)
- Substance use prevention
   (e.g., 25 to 50% reduction in lifetime use of tobacco and other drugs)







http://teens.drugabuse.gov/national-drugfacts-week/chat-withscientists/2015/transcript

### 

Total Question Submitted By Users	36000
Total Number of Answered Questions	2457
2015	
Total Question Submitted By Users	7962
Total Number of Answered Questions	2585
	40001
[Total Number of Deleted Questions	1989]

- ▶ What are the active ingredients?
- ► The 3 Rs: Respect Relevance Repetition.
- ► Framing the issues.
- ► The "cherry-picking syndrome". (the example of marijuana and the endocannabinoid system.)